Wildlife Diversity News

A Publication of the Iowa DNR Wildlife Diversity Program

Volume 9, Issue 3

Fall 2010

Merging Rivers Focus of New BCA

On September 15, the Iowa DNR designated the Boone Forks Woodland Bird Conservation Area (BCA) as another special Iowa focal area in which to promote bird conservation efforts. This BCA encompasses the Boone Forks region, where the Boone River joins the Des Moines River in Hamilton and Webster counties, and it is a particularly important area for birds and bird watchers alike.

The Des Moines River (above) meets up with the Boone River in Webster and Hamilton counties

The Boone Forks Woodland BCA is one of the richest areas in the state for woodland nesting birds such as the wood thrush, American woodcock, pileated woodpecker, cerulean warbler, and whip-poor-will. Results from Iowa's Gap Analysis Project (2003) show this area to contain some of the highest bird diversity in the entire state, and recent Iowa Breeding Bird Atlas data indicate there are 125-135 bird species that breed in this region each year. This landscape also supports crucial habitat for birds during migration, providing both feeding and roosting areas that help sustain migrants as they move between winter and summer habitats, making it a clear choice to become Iowa's 16th Bird Conservation Area.

The Des Moines River is of particular importance because it is the connecting corridor for wildlife movements from Minnesota to Missouri, and it traverses the central portion of the state. With its wooded bluffs, scenic sandstone cliffs, and abundance of wildlife, it is appreciated by a large number of outdoor enthusiasts each year. The Boone River, which forms the core area of the eastern arm of this BCA, is equally important to a large number of wildlife species. Nearly all of the 36 warbler species that nest in or migrate through Iowa can be found along these two watersheds, especially during spring.

Of course the success of this BCA is dependent on the cooperative action of many partners. In this case, public agencies like Iowa DNR, Webster and Hamilton County Conservation Boards, and NRCS; private conservation organizations like Iowa Natural Heritage Foundation, Iowa Audubon, Iowa Ornithologists' Union, and National Wild Turkey Federation; and of course private citizens. All will need to continue to work together to ensure that this area remains an important bird conservation area far into the future.

- Bruce Ehresman
Avian Ecologist

Inside this issue:

Edited by: Jenni Dyar

Diversity Dispatch

Breaking News in the Wide World of Wildlife

Extinct Frog Scavenger Hunt
Three amphibian species presumed to be extinct have been rediscovered so far as part of a two-month worldwide mission led by Conservation International (CI). The search targets 100 species that haven't been seen in over a decade. In September, CI announced the successful rediscovery of the Mount Nimba reed frog in the Ivory Coast, Omaniundu reed frog in the Democratic Republic of Congo, and cave splayfoot salamander in Mexico. The salamander was last seen in 1941. As a group, amphibians are the most threatened animals on the planet—approximately 1/3 of species are considered at risk of extinction. While the three newly rediscovered species have been able to survive undetected for decades, many more are likely gone for good. Habitat loss and the fungal disease chytridiomycosis are the two biggest threats to amphibian survival. The chytrid fungus can wipe out a species suddenly and essentially without warning—the Costa Rican golden toad (*Incilius periglenes*) went from abundant to presumed extinct in little more than a year. CI's search aims to find out which species are still hanging on so we can better focus conservation efforts.

Bird Watching's Online Migration
eBird, Cornell and Audubon's global real-time online checklist program, is a great example of how casual observations can become scientific data. People use eBird to record the birds they see, whether it is a list of that day's feeder visitors or sightings during a birding trip. With more than 48 million observations already entered in eBird, collecting and analyzing all that data is not something an average computer can handle. To help out, eBird was recently granted 100,000 hours on the US National Science Foundation's TeraGrid supercomputer. By combining bird observation with remote-sensing information (land cover, for example), TeraGrid will learn what factors best predict bird presence and, in turn, use that to predict bird movement. This information can help identify and highlight areas important to the birds.

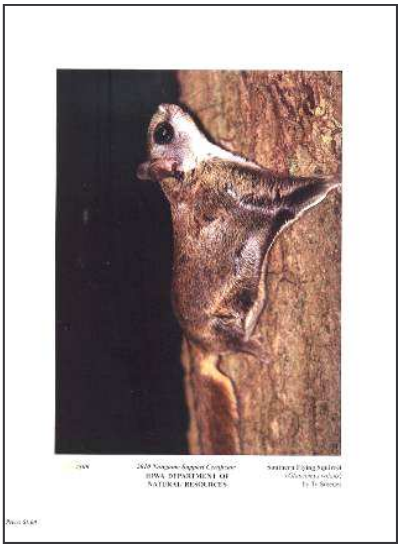
A model of the indigo bunting's spring migration, based on eBird observations.

Get one before they're gone!

It's almost time to retire this year's non-game support certificate. Support certificates are numbered collectible prints featuring a different species of wildlife each year. They are sold for $5 and benefit the Wildlife Diversity Program. If you would like to purchase one, please go to: http://www.iowadnr.gov/wildlife/files/divsupport01.html This year's featured critter is a southern flying squirrel, photographed by Ty Smedes.

You can also write or call to get your copy:
Iowa DNR
Attn: Non-game Support Certificate
Wallace State Office Building
Des Moines, IA 50319-0034
(515) 281-5918

And don't forget to keep an eye out for the 2011 certificate, which will be released mid-December!



TEAMING WITH WILDLIFE
a natural investment

Iowa's Teaming With Wildlife Coalition
Over 230 groups working together to prevent wildlife from becoming endangered.

Hawk Watchers Gather at Effigy Mounds

Fall visitors to northeast Iowa aren't just there for the turning leaves. Some also take the time to stop by Effigy Mounds National Monument the first weekend in October for the annual Hawk Watch Weekend.

Situated next to the Mississippi River, Effigy Mounds is an excellent location for observing migration. This year's Hawk Watch was held October 2-3. Both days were mostly sunny with a light wind and highs in the upper 50s. Despite this beautiful weather, not many raptors were seen moving through. The total counts for the weekend were:

Turkey vulture—82
Bald eagle—24
Northern harrier—1
Sharp-shinned hawk—2
Cooper's hawk—3
Northern goshawk—1
Broad-winged hawk—1
Red-tailed hawk—19
American kestrel—1
Peregrine falcon—1
Unknown accipiter—1
Unknown buteo—3
Unknown raptor—3

The Duluth, MN, migration count site reported most raptors were flying at higher altitudes, which could explain the unexpectedly low numbers on such a beautiful weekend. Many more birds could have been flying over, too high for us to spot.

Over 1,100 people came out to the Visitor Center to see the educational programs and live bird releases, and appreciate a little slice of the fall migration.

Hawk Watch is coordinated by the Upper Iowa Audubon Society with help and participation from the Iowa DNR, Effigy Mounds staff, Boone Y-Camp, Laurel High School (Viroqua, WI) students, Hoo's Woods Raptor Center (Milton, WI), and many individual volunteers.

A banded red-tailed hawk is released.
©2010 Jenni Dyar

Thanks to everyone who came out and we look forward to seeing you next year!

- Jenni Dyar
Natural Resources Aide

Alien Invasion!

Photo by Bobby Acree

Not of little green men but of smallish gray mammals with body armor and a pointy snout. Since early September we have received three reports of road-killed armadillos found in scattered locations in southern Iowa: Scott, Jefferson and Montgomery Counties. Armadillo sightings in Iowa are nothing new, but there have never been so many reports in such a short time period and from such widespread locations. Before too long, it is likely that this strange little critter will become an accepted member of Iowa's fauna.

The species of armadillo ("little armored one" in Spanish) found in North America is the nine-banded *(Dasypus novemcinctus),* and its original range in this country was the south central U.S. Its range has been rapidly expanding over the last several years, however, and it has also been seen in Illinois and Nebraska. Its habit of jumping straight up in the air when surprised often has the unfortunate result of a collision with the fender or undercarriage of a vehicle, which is why most armadillos reported to us are road kills.

We don't expect any major negative repercussions from this invasion but we would like to track it. Report any observations of armadillos in Iowa to the Wildlife Diversity Program with the when and where of the sightings. A picture is also appreciated.

- Stephanie Shepherd
Surveys & Data Coordinator

22% of the original purchase price and 60% of the renewal fee for natural resource license plates go directly to the Wildlife Diversity Program.

Project Monarch Watch: Unraveling Mysteries

Photo by Tarnya Hall

Every fall, tens of millions of monarchs living east of the Rocky Mountains take to the air, embarking on a 1200-2000+ mile flight south. Their destination: the Transvolcanic Range of central Mexico, where they will spend the winter. Depending on where the monarch starts, the journey will take between 2 and 2.5 months.

Monarchs from the Midwest will fly mostly due south, while those on the Atlantic coast will fly southwest so they can all meet up in Mexico. Along the way, environmental agencies, groups, and interested citizen scientists attempt to capture and tag these butterflies using tags provided by Monarch Watch.

Based at the University of Kansas, Monarch Watch has coordinated monarch tagging efforts since 1992. Interested monarch taggers can buy tags in batches of 25. Each tag has a unique combination of letters and numbers, as well as the contact information for reporting a found tag. When the monarchs are tagged, the date, location, and unique tag code are recorded on a data sheet. This information is sent to Monarch Watch. When a tagged butterfly is found and reported, Monarch Watch will look up the tag code. Both the person who tagged and the person who found the monarch are sent the information on that individual butterfly – location and date of both the tagging and the recovery, as well as the distance travelled. Between 1992 and 2005, over 11,000 tags were found and reported.

Mexico's Transvolcanic Range
Source: http://wwf.org.mx/wwfmex/mapas.php?lugar=mm

There are two types of monarchs – reproductive and migratory. Reproductive monarchs are the ones we see during the spring and summer, and they have a life span of 2-5 weeks. In contrast, migratory monarchs (the ones that fly to Mexico) live 8-9 months. Imagine if every few generations, humans lived to be 757 years old instead of the usual average of 80! The monarchs we see returning in the summer are 3-4 generations removed – that is, the great or great-great grandchildren – from the ones who flew south the previous fall.

Monarchs face many perils during their journey to Mexico, both on the way down and during the return trip. They must avoid being eaten by birds or struck by cars, and they have to be able to find safe places to eat and rest throughout their migration route. Monarchs only fly during the day, so each night they must find a place to sleep (roost). Monarchs will gather together at roost sites to keep warm, and many of these sites are used year after year. Often pine, fir and cedar trees are chosen because their thick canopies act like a blanket, moderating the temperature and humidity.

In Mexico, the monarchs concentrate in only 11-12 known overwintering sites each year. Each site is only a few hectares in size and supports millions of monarchs. The butterflies favor areas dominated by oyamel fir trees. Due to its structure, the oyamel insulates monarchs from weather and temperature.

A tagged monarch © 2010 Jenni Dyar

Unfortunately, it is also a valuable local lumber source. Logging in the area not only removes roost trees, but also opens up the forest canopy; these gaps act like holes in a winter coat, letting in snow and rain and making the monarchs more vulnerable to freezing. In 2002 a single strong storm killed an estimated 80% of the overwintering population. By contrast, the overall mortality is less than 20% during mild winters.

Because the butterflies can cross Canada, the US, and Mexico during their migration, conserving habitat in all three countries is important. Recognizing this, the three have joined together to develop the North American Monarch Conservation Plan. The plan aims to maintain healthy monarch populations and habitats throughout the migration flyway.

Roadside ditch mowing and the use of glyphosate (a broad-spectrum herbicide) on row crops can both lead to a decrease in milkweed plants in an area. Without these host plants to feed on, most caterpillars will not reach adulthood. Additionally, introduced milkweed plants (swallow-worts in the genus *Cynanchum*) are similar enough to native milkweeds that monarchs can be

Continued on page 5

To learn more about Monarch Watch, go to:

http://www.monarchwatch.org/

Project Monarch Watch (continued)

Continued from page 4

fooled into laying their eggs on them. These swallow-worts are not suitable host plants, and the caterpillars that feed on them will fail to develop into butterflies.

You can help by using monarch-friendly native plants in your landscaping (see list below for some ideas). In addition to attracting butterflies, native plants require less water and fertilizer than non-native ornamentals. By planting native wildflowers, both you and the butterflies win!

- Jenni Dyar
Natural Resources Aide

Host Plants (for caterpillars)
Butterfly milkweed (*Asclepias tuberosa*)
Swamp milkweed (*Asclepias incarnate*)
Any other native milkweed (*Asclepias* species)

Food Plants (for butterflies)*
Boneset (*Eupatorium perfoliatum*)
Black-eyed susan (*Rudbeckia hirta*)
Blazing stars (*Liatris* species)
Frost aster (*Symphyotrichum pilosum*)
Indigos (*Baptisia* species)
Joe pye weed (*Eupatorium maculatum*)
New England aster (*Symphyotrichum novae-angliae*)
Prairie coreopsis (*Coreopsis palmata*)
Prairie phlox (*Phlox pilosa*)
Prairie violet (*Viola pedatifida*)
Purple coneflower (*Echinacea purpurea*)
Wild bergamot (*Monarda fistulosa*)
Woodland blue phlox (*Phlox divaricata*)

* This list is just a sample of some of the native Iowa species preferred by monarchs. Contact your Iowa State University Extension county office for butterfly-related publications and more information.

Monarch caterpillar on milkweed
Photo by Josh Otten

A list of nurseries that carry native plants can be found at www.plantnative.org/nd_idtoks.htm (scroll down to the Iowa section).

Snug Sleep Space for Snakes

A milk snake can grow up to 4 feet in length, but most are much smaller than that.

One of the Iowa DNR Management Units recently completed installing a hibernaculum on a Wildlife Management Area. We have been surveying the property for a few years and, while we found most of the snake species we would expect to be present on the site, the numbers of those species (other than eastern garter snakes) are fewer than expected. During the last four years we have found only a handful of fox snakes, milksnakes, plains garter snakes, and brown snakes. In an effort to improve those numbers, the Management Unit in charge of the property agreed to install a hibernaculum following the Natural Resource Conservation Service blueprint.

The structure is approximately 8 feet deep, 10 feet wide, and 15 feet in length. It was filled in with discarded logs, concrete chunks, and rock. Lastly, it was covered with dirt, and we expect it to resemble a grassy mound with some exposed rock by next fall. The snakes crawl into the structure between the spaces in the exposed rock and down into the area below the frost line to spend the winter. Our hope is that this will provide additional areas for the snakes to seek shelter until the spring.

- Karen Kinkead
Monitoring & Research Biologist

Nick Jordan places old wooden lumber into the newly dug hibernaculum.

Finished structure

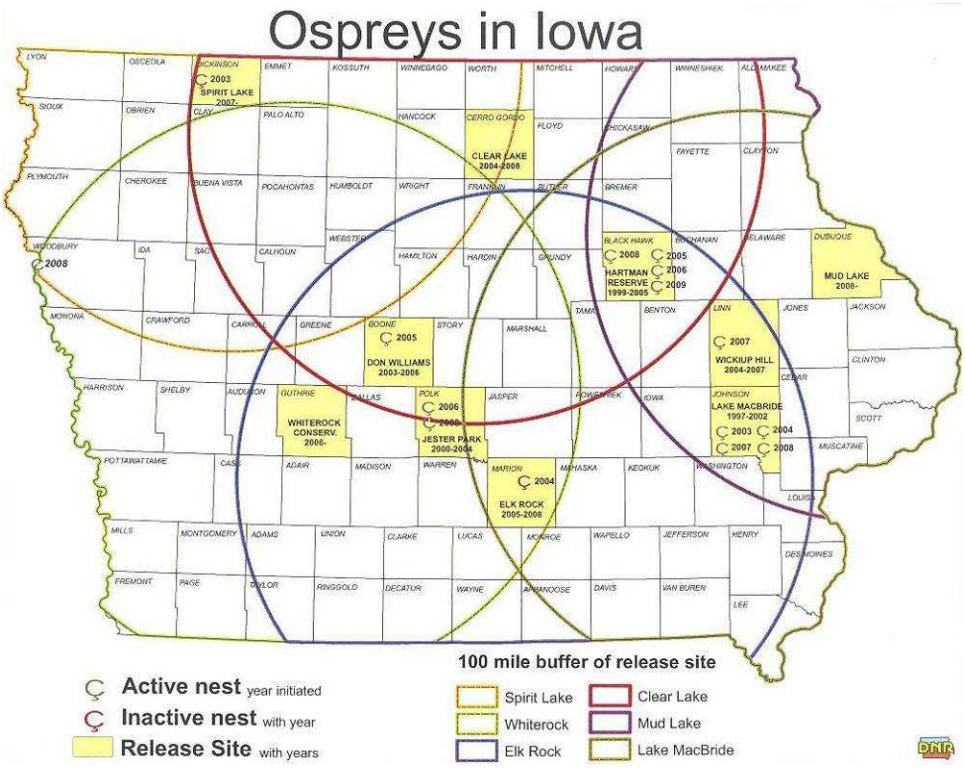
Landmark Year for Osprey Restoration

Two osprey milestones were realized this year. First, more young hatched and fledged from wild nests than were released. Second, ospreys that had previously hatched in Iowa returned to successfully nest and fledge young. Seventeen nest attempts resulted in 12 successful pairs producing 22 young.

Nine counties saw nesting activity this year: Black Hawk (2 successful, 1 attempt); Boone (1 attempt); Cerro Gordo (1 attempt); Dickinson (1 attempt); Johnson (3 successful, 1 attempt); Linn (2 successful); Monona (1 successful); Polk (3 successful); and Woodbury (1 successful). The male at one of the Polk County nests had a green leg band, indicating he hatched in Iowa. This is the first report of a wild-hatched Iowa bird returning to nest.

In addition, 21 young ospreys from Minnesota and Wisconsin were relocated to five sites within Iowa this year: the Annett Nature Center near Lake Ahquabi (Warren Co), Lake Red Rock (Marion Co), Mud Lake (Dubuque Co), Spirit Lake (Dickinson Co), and Whiterock Conservancy (Guthrie Co). On the map, right, all counties in which ospreys have been released are highlighted in yellow. Males will return to within 100 miles of where they were released, noted as circles on the map. Each colored circle corresponds to a different release site; as you may notice, because we have had so many partners willing to bring in ospreys, nesting is now possible in nearly any part of the state. Keep your eyes open for ospreys nesting on a lake near you!

Over the last three years, Birds of Prey NW (Coeur d'Alene, Idaho) has released 61 ospreys at Lake Yankton in southeastern South Dakota. Being so close to the border, some of those birds will likely settle in Iowa. This is a wonderful addition of genes which will bolster our efforts in western Iowa. Water bodies in NE Nebraska and SW Minnesota could also acquire nesting ospreys, to the benefit of outdoor enthusiasts in those areas.



Counties shaded in yellow represent release sites. The colored circles show potential dispersal of released osprey. Since males will return to within 100 miles of the release site, osprey nests could be found almost anywhere in Iowa.

The many osprey stewards and volunteers, as well as all Iowans, can enjoy this monumental year for osprey restoration. Since 1997, 249 ospreys have been released at eleven sites. Seventy-two wild ospreys have hatched at 38 successful nests since the first nesting in 2003.

Each year a conscious effort is made to band wild-produced osprey so we can monitor their movements, but many of the nest sites do not offer safe climbing conditions for us to reach the young. The return and successful nesting of a bird we were able to band is reason to pause and acknowledge the incredible patience and perseverance of all volunteers and staff. Hearty congratulations and thanks to all of you on this momentous occasion. May there be many more success stories in the future!

- Pat Schlarbaum
Wildlife Diversity Technician II

Report osprey nests to the Wildlife Diversity Program! Make note of the nest location, adult leg bands (if any), and nesting activity, and write or call:
1436 255th St, Boone, IA 50036
(515) 432-2823 ext. 104

Please be respectful of the birds and stay at least 400 feet from the nest.

BBAII Fall Review

Another year is in the books for Iowa's 2nd Breeding Bird Atlas (BBA), and what a fun year it was! I still think fondly of the worm-eating warbler I heard singing east of Wapello, the white-eyed vireo pair I saw attending young at a nest southeast of Ottumwa, and the loggerhead shrike family I observed in southeast Pottawattamie County.

Not only did I enjoy many wonderful atlasing trips around the state, but I also enjoyed meeting many of Iowa's dedicated and skillful birders who are, not surprisingly, very enthusiastic about their Iowa birds.

With three years complete, where do we stand now? In 2010, volunteers logged an additional 1600 hours of observation time, bringing the total to 4900 hours. Volunteers also completed 17 more blocks this season, bringing that total to 37. In addition, a new species was recorded, an elusive pair of Mississippi kite in Wapello County, which elevated our total species count to 191. In the midst of these achievements, the biggest milestone of 2010 occurred when volunteers atlased the last of the unvisited blocks. At the beginning of the year there were 144 unvisited blocks, but now none remain. Nicely done folks!

Now with records in every one of Iowa's 791 blocks, we should rethink our atlasing strategy for the next year. To refocus our efforts, the progress completion map on the website has been revised. Red pins now represent blocks with less than 5 hours of effort, yellow pins represent blocks with 5-10 hours of effort, and blue and green pins remain the same. Much like Babe Ruth's famous called shot during the 1932 World Series, where he pointed to the center field bleachers and then promptly hit a home run on the next pitch, I am pointing to these 455 red pins as our next atlasing goal. It sounds like a big number, but I think we are up to the challenge! After all, this data is crucial for the conservation and management of Iowa's wonderful birdlife. Don't forget to keep an eye out for used nests as the leaves fall, and we wait for the next breeding season to begin. Happy birding!

Chipping sparrow attending young.
© 2010 Jenni Dyar

- Billy Reiter-Marolf, AmeriCorps
BBA Volunteer Coordinator
1436 255th Street
Boone, IA 50036
(515) 432-2823 ext. 117
Cell: (515) 298-3072
bbacoordinator@iowabirds.org

To learn more and join the effort, go to: http://bba.iowabirds.org/

MSIM Project Update

I had a great time working throughout the state during my first year with the MSIM (Multi-species Inventory and Monitoring) project. As with all field work, we had some significant challenges with record flooding and clouds of mosquitoes causing irritation and consternation for our crews. In spite of the troubles, we tallied an impressive list of species for each area, including many species of greatest conservation need (SGCN).

The Ruthven crew worked in Palo Alto, Clay, Buena Vista, Sac and Pocahontas counties. Their travels found them mostly in prairie pothole country where they discovered some cool species such as the meadow jumping mouse, Blanding's turtle (SGCN), and tiger salamander.

The Boone crew spent time in Wright, Franklin, Webster, Hamilton, Calhoun and Boone counties surveying a variety of habitat types, from oak/hickory woodland to prairie potholes to shallow lakes. Some notable SGCN finds were the vesper bluet damselfly, northern prairie skink, and southern flying squirrel, as well as confirmed breeding of the black-billed cuckoo and common moorhen.

The Bays Branch crew worked in Greene, Guthrie, Carroll, Crawford, Shelby, Audubon, Cass, Ringgold and Decatur counties. They surveyed grasslands, woodlands, marshes, and riparian areas and found some uncommon species such as the marine blue butterfly, a very rare southern migrant, and the trout-perch (SGCN).

The Iowa City crew worked in Johnson, Iowa, Tama, Mahaska, Keokuk, Washington, and Muscatine counties. Many of their sites were bottomland woods which were flooded much of the summer. Even with the difficult conditions they found some great stuff such as the ornate box turtle, smooth green snake, cyrano darner dragonfly, and regal fritillary butterfly, which are all SGCN critters.

With winter upon us, we have plenty of data to sort through and plans to develop for next year. The 2010 field season was a successful endeavor that helped us learn more about Iowa's landscape and the species found here.

- Paul Frese
Wildlife Diversity Technician II

Species Spotlight: Indiana Bat

Bats who show up on your doorstep exclaiming "Trick or treat!" shouldn't be the only kind you look forward to seeing. The little furry ones flying around your backyard at dusk should also be enjoyed, if for no other reason than a bat can eat up to half its weight in insects each night. In Iowa you can find eleven species of bats, but only one is federally endangered—the Indiana bat.

The Indiana bat is quite small, weighing only one-quarter of an ounce (about the weight of three pennies). In flight, they have a wingspan of 9-11 inches. With dark brown or black fur, they are similar in appearance to many other bat species. Indiana bats eat a variety of flying insects found along rivers or lakes and in uplands.

Indiana bats spend the winter in caves or sometimes abandoned mines. They require cool, humid caves with stable temperatures between 32 and 50°F. Very few caves within their range have these conditions; as a result nearly 85% of Indiana bats hibernate in only 9 caves and mines, most of which are located in southern Indiana.

Most of Iowa's Indiana bats migrate south to Missouri to hibernate, although a few spend the winter in caves in Dubuque County. Before hibernating, bats must store energy in the form of fat. During the six months of hibernation the stored fat is their only source of energy. If they are disturbed or cave temperatures are outside their preferred range, the bats could use up their fat stores too quickly and starve.

The rest of the year, Indiana bats roost under loose bark on dead or dying trees. During summer, males roost alone or in small groups, while females roost in larger groups of up to 100 bats or more. These groups are called maternity colonies. Each female in the colony gives birth to only one pup per year.

Loss and fragmentation of forested habitats, including removing dead trees, can affect the population. They can also be affected by eating contaminated insects, drinking contaminated water, or absorbing chemicals from pesticides while feeding in areas that have been recently treated. Another growing threat is the disease white-nose syndrome (see the article in our summer 2009 newsletter). Indiana bats are extremely vulnerable to white-nose syndrome because they hibernate in large numbers in only a few caves. They can cluster in groups of up to 500 bats per square foot, and the largest hibernation caves house 20,000-50,000 bats. With an estimated population of 207,000, more than 10% of the population can be found in a single cave during the winter.

This annual concentration of the population to only a few areas is the reason the Indiana bat is on the federal

Photo by Bat Conservation International

endangered species list. As part of the requirements of the Endangered Species Act, US Fish & Wildlife Service has developed a recovery plan. Habitat protection, education, and outreach are all critical to effective recovery efforts.

- Jenni Dyar
Natural Resources Aide

Save the Date

Some dates and locations have been set for the Spring 2011 Volunteer Wildlife Monitoring Workshops. Details will follow or you can contact Stephanie Shepherd, Stephanie.shepherd@dnr.iowa.gov for more information.

<u>Frog and Toad Call Survey Trainings</u>
April 2 and 7 – Warren County - In partnership with Warren County Conservation
April 6 – Crawford County – In partnership with Crawford County Conservation
April 13 – Wapello County – In partnership with Wapello County Conservation

<u>Raptor and Colonial Waterbird Nest Monitoring Trainings</u>
March 19 – Warren County – In partnership with Warren County Conservation
March 26 – Jackson County – In partnership with Jackson County Conservation

Last Look

A male Nevada buckmoth (*Hemileuca nevadensis*) in a defensive posture. This species was only recently discovered living in the Loess Hills—before that it was not thought to occur in Iowa at all.

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A Publication of the:

Iowa DNR Wildlife Diversity Program

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www.iowadnr.gov

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Events Calendar

2011 Bald Eagle Appreciation Days
Many bald eagles spend the winter in Iowa. Come out and enjoy them at one (or several) of the bald eagle events held this winter!

Jan. 8: 8:30am-3:30pm
Clinton Community College, Clinton, IA
(outdoor viewing at Lock & Dam 13)

Jan. 8: 9am-2pm
River Center, Ottumwa, IA

Jan. 8-9: 10am-8pm Sat, 10am-5pm Sun
QCCA Expo Center, Rock Island, IL

Jan. 15: 9am-4pm
Grand River Center, Dubuque, IA
(outdoor viewing at Lock & Dam 11)

Jan. 15-16: 9am-3pm Sat, 10am-3pm Sun
River City Mall, Keokuk, IA
(outdoor viewing along river front)

Jan. 15-Feb. 20: weekends
Mississippi River Visitor Center, Rock Island, IL
*Reservations required: Contact the Visitor Center (309-794-5338)

Jan. 29: 9am-3pm
Riverview Center, Riverside Park, Muscatine, IA
(outdoor viewing at Lock & Dam 16)

Jan. 29: 9am-4pm
Lock & Dam 21, Quincy, IL

Jan. 29-30: 10am-1pm Sat, 1-4pm Sun
Mississippi Valley Welcome Center, LeClaire, IA
(outdoor viewing at Lock & Dam 14)

Feb. 26: 9am-3pm
Location TBD, Prairie du Chien, WI

Feb. 27: 10am-4pm
Saylorville Lake Visitor Center, Polk City, IA

Mar. 4-5: 10am-5pm
Central College, Pella, IA
(outdoor viewing at North Tailwater, Lake Red Rock)

Mar. 5: 8:30am-?
Nature Center, Linn Grove, IA
*To preregister, write to: Wonders of Nature, 107 Weaver, Linn Grove, IA 51033

For more information about these events, call (515) 432-2823 or go to www.missriver.org.